Cray

Customer Satisfaction Survey
Western Region
Report of Findings

INPUT

CRAY

CUSTOMER SATISFACTION SURVEY
WESTERN REGION
REPORT OF FINDINGS

JUNE 9, 1986

by

Jack Keen, Project Manager

INPUT

1943 Landings Drive

Mountain View, CA 94303

(415) 960-3990

INPUT

CONTENTS

- Objectives and Methodology
- Analysis of Findings
  - Overall Attitudes, Decision Criteria
  - Hardware Reliability/Support
  - Software Reliability/Support
  - CRI Marketing and Hardware Management
- Recommendations/Summary
- Sample Questionnaire

INPUT

Executive Summary

CRI OBJECTIVE

- Maintain CRI as the Standard of Value
- Further Strengthen CRI by:

  Using Customer Satisfaction as a Primary Competitive Edge
- Method:

  Conduct Customer Satisfaction Survey to Understand Attitudes/Concerns
- Outcome:

  Identify Steps to Enhance Customer Satisfaction

INPUT

METHODOLOGY

- U.S.A. Customer's Only
- 42 Sites (West = 12)
- 45 Interviews (West = 14)
- 18 On-Site Interviews (West = 7)
- 27 Telephone Interviews (West = 7)
- Respondents: Person(s) Most Likely to:
  - Influence Next Supercomputer Acquisition
  - Be Most Knowledgeable of CRI Performance
- Standard Questionnaire
- Comments Actively Encouraged

INPUT

RATING SCALES

- Respondents Often Asked to Rate Their Attitudes on a Scale of 1 to 10

  1 - Low

  10 - High

- Respondents Given No Further Description of Rating Values

- Generally Consider Evaluating Responses as Follows:

9 - 10	Excellent
7 - 8	Good
5 - 6	Fair
1 - 4	Poor

- ▲= Western Region Number

INPUT

5ZCRY-2

WESTERN REGION CUSTOMERS INTERVIEWED

ORGANIZATION	RESPONDENT
Boeing Compter Services	Robert Spielman
Chevron Oil Field Research	Jim Simpson
Digital Productions	Jim Davis
Fairchild	Carlso D'Angelo
GA Technologies	Sid Karin
Lawrence Livermore Nat. Lab.	Bob Borchers
Lockheed Adv. Aeronautics	Harold Weinberger
Lockheed Missiles and Space	Doug Telford
NASA Ames	F. R. Bailey Marcie Smith
National Magnetic Fusion Energy	John Kileen Marilyn Richards
Rockwell	Dan Parcel Abraham Levine
Sandia Nat. Lab., CA	Steve Binkley

INPUT

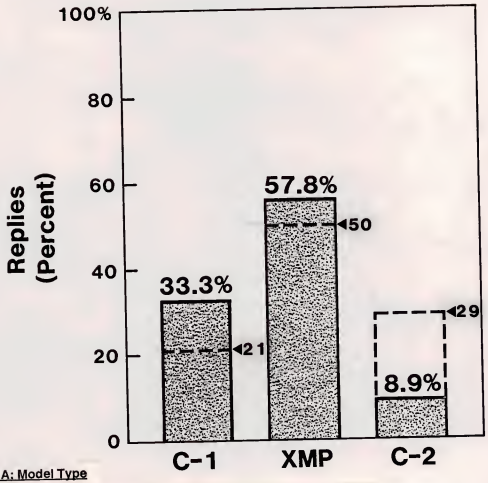
ANALYSIS OF FINDINGS

INPUT

CUSTOMER PROFILE

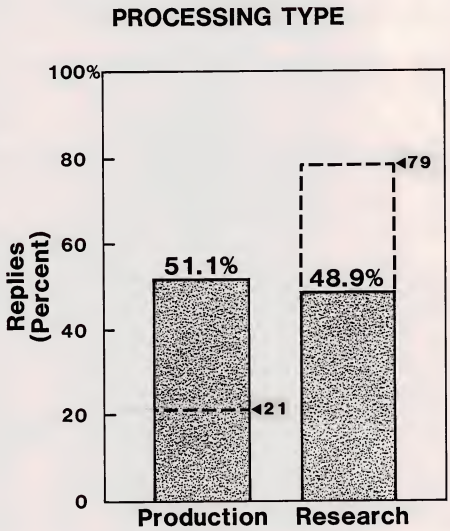
INPUT

MODEL TYPE



Q1A: Model Type

	Model Type	Percent	Number of Cases
All	C-1	33.3	15
	XMP	57.8	26
	C-2	8.9	4
West	C-1	21	3
	XMP	50	7
	C-2	29	4



Q1F: PROCESSING TYPE

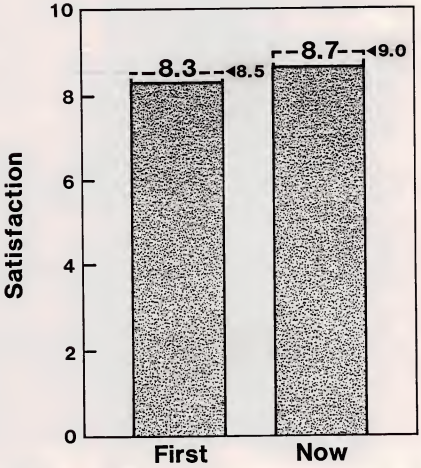
PROCESSING TYPE	%	DESCRIPTION
PROD.	51.1	PRODUCTION
RES.	48.9	RESEARCH

INPUT

OVERALL ATTITUDES AND DECISION CRITERIA

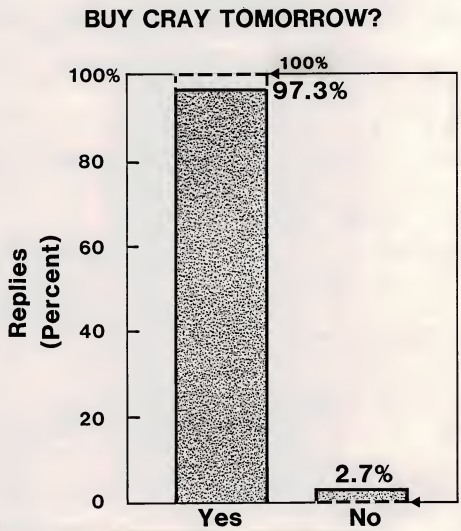
INPUT

CRAY SYSTEM
MEETING EXPECTATIONS



Q24: Extent Living up to Expectations

	Code	Mean	Min.	Max.	Std. Dev.	Cases
All	First	8.3	1	10	2	45
	Now	8.7	5	10	1.3	45
West	First	8.5	5	10	1.2	14
	Now	9.0	8	10	0.8	14



Q26: Buy Cray Tomorrow?

	Rating	Percent Total	Number of Cases
All	Yes	97.3	36
	No	2.7	1
	Total	100	37
West	Yes	100	11

INPUT

WHY BUY FROM CRAY TOMORROW MORNING?

"Hardware Well-Designed"

"Compatibility"

"No Alternative Today"

"Dollar for Dollar, CRAY Is Best"

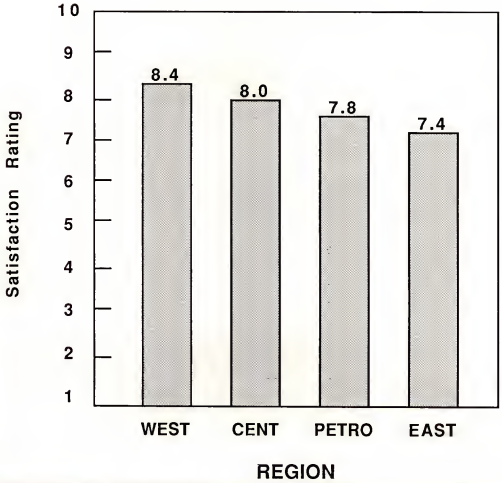
"But- - - - - - - - -"

"My Answer Might Be Different a Year from Now"

"Our Software Needs May Help CRI Competition"

INPUT

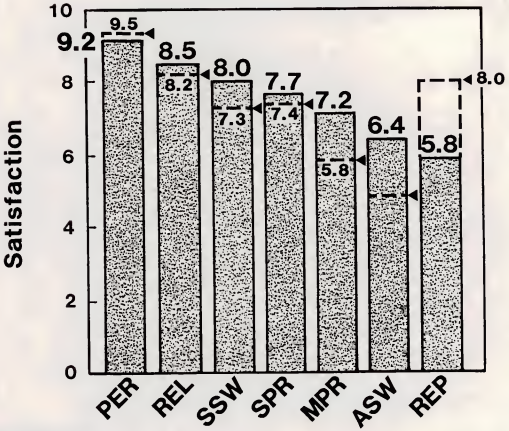
REG. OS SKILL (SITE)



Q16: Region OS Skill Level (On-site)

Region	Mean	Min.	Max.	Std. Dev.	Number of Cases
West	8.4	8	10	.8	7
Cent	8	4	10	2.5	5
Petro	7.8	5	10	1.7	11
East	7.4	5	8	1.3	5
Total					21

DECISION CRITERIA TODAY



Q2: Decision Criteria

	Code	Mean	Min.	Max.	Std. Dev.	Description
All	PER	9.2	6.0	10.0	1.1	Overall System Perform.
	REL	8.5	3.0	10.0	1.6	System Reliability
	SSW	8.0	1.0	10.0	2.0	Availability of Sys. SW
	REP	5.8	1.0	10.0	3.0	Vendor Maint. Rep.
	SPR	7.7	4.0	10.0	1.6	Overall System Price
	MPR	7.2	3.0	10.0	1.8	Maintenance Price
	ASW	6.4	3.0	10.0	1.8	Avail. of Appl. SW
West	PER	9.5	8.0	10.0	0.8	
	REL	8.2	4.0	10.0	2.0	
	SSW	7.3	1.0	10.0	2.9	
	REP	8.0	5.0	10.0	1.7	
	SPR	7.4	4.0	10.0	1.8	
	MPR	5.8	3.0	8.0	1.6	
	ASW	4.8	1.0	10.0	2.9	

COMMENTS REGARDING DECISION CRITERIA

"Ease of Converting Is Very Important."

"Compatibility Is Very Important."

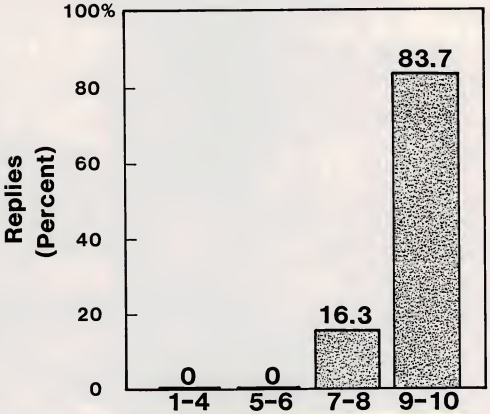
"Throughput and Compatibility Is Key."

"Availability of Systems Software
Will Be Especially Important."

HARDWARE RELIABILITY/SUPPORT

INPUT

HARDWARE INSTALLATION

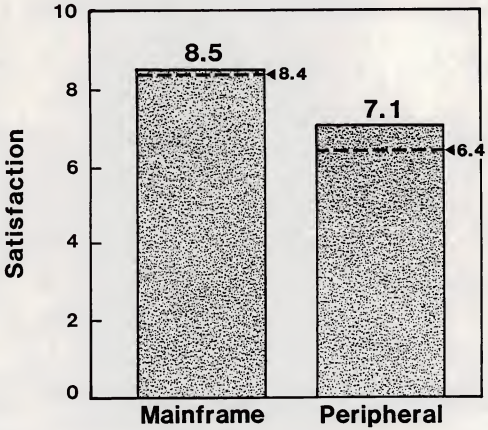


Q19: Hardware Installation

	Rating	Percent Total	Number of Cases	Mean	Min.	Max.	Std. Dev.
	1-4	0	0				
	5-6	0	0				
	7-8	16.3	7				
	9-10	83.7	36				
All	Total	100.0	43	9.4	7	10	.9
West			14	9.4	8	10	.8

INPUT
27 ZCRY
21ZCRY

HARDWARE SATISFACTION

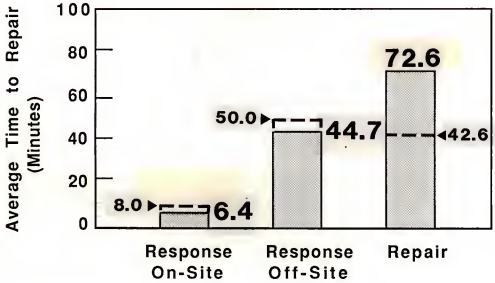


Q9: Mainframe Availability/Reliability

	Code	Mean	Min.	Max.	Std. Dev.	Cases	Description
All	MF	8.5	2	10	1.8	44	Mainframe Avail./Reliability
	PER	7.1	2	10	1.8	42	Peripheral Avail./Reliability
West	MF	8.4					
	PER	6.4					

INPUT

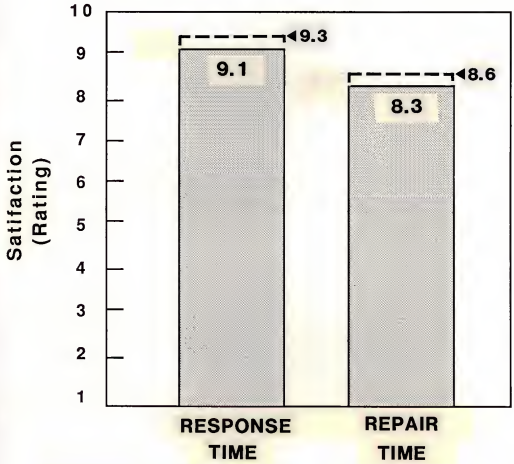
HARDWARE SUPPORT TIME



Q7A, B, Q8: Hardware Response/Repair Time

	Code	Mean	Min.	Max.	Std. Dev.	Number of Cases
All	Response On-Site	6.4	1	60	10.0	35
	Response Off-Site	44.7	10	75	17.7	17
	Repair	72.6	18	210	47.5	30
West	Response On-Site	8	1	60	16.5	12
	Response Off-Site	50	10	75	24.7	5
	Repair	42.6	18	60	16.6	17

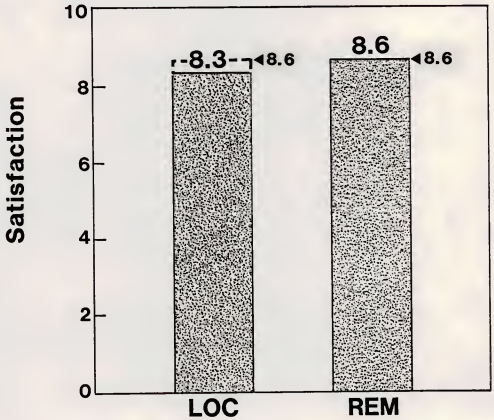
HARDWARE MAINTENANCE SATISFACTION



Q9C,D: Hardware Maintenance Response/Repair Time

	Code	Mean	Min.	Max.	Std. Dev.	Number of Cases
All	RESPONSE	9.1	5	10	1.1	38
	REPAIR	8.3	2	10	1.7	37
West	RESPONSE	9.3	8	10	1.2	12
	REPAIR	8.6	6	10	2.0	11

CE SKILL LEVEL

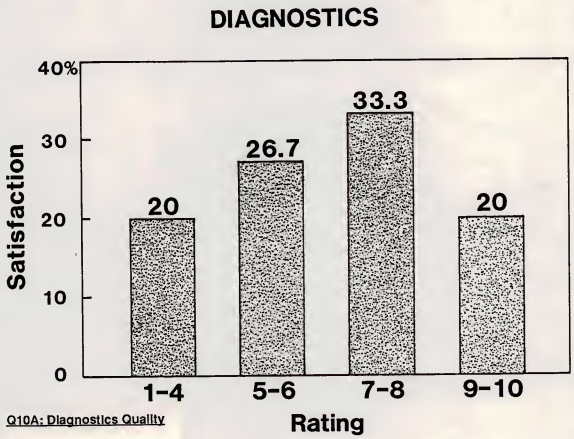


Q11E,F: Customer Engineer Skill Level Ratings

	Code	Mean	Min.	Max.	Std. Dev.	Number of Cases
All	LOC	8.3	5	10	1.1	37
	REM	8.6	7	10	.9	23
West	LOC	8.6	6	10	1.0	12
	REM	8.6	8	9	0.5	7

INPUT

25ZCRY-2



Q10A: Diagnostics Quality

	Rating	Percent Total	Number of Cases	Mean	Min.	Max.	Std. Dev.
	1-4	20	6				
	5-6	26.7	8				
	7-8	33.3	10				
	9-10	20	6				
All	Total	100.0	30	6.5	2	10	2.3
West			12	6.7	4	10	20

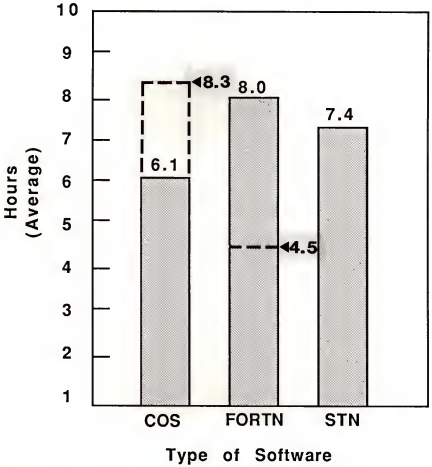
INPUT

26ZCRY-2

SOFTWARE RELIABILITY/SUPPORT

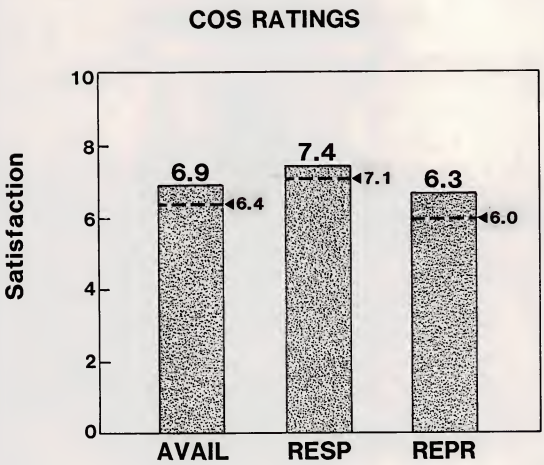
INPUT

SYSTEMS SOFTWARE RESPONSE TIME



Q13: Systems Software Response Time

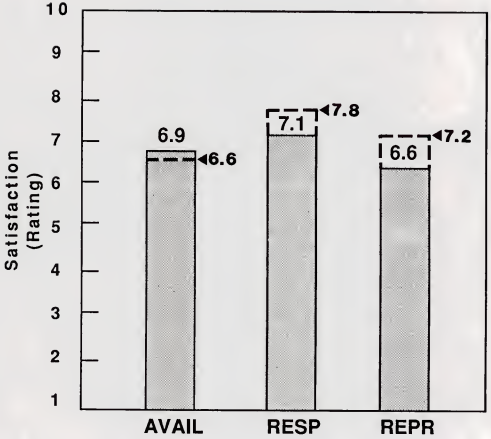
	Type	Mean	Min.	Max.	Number of Cases	Description
All	COS	6.1	.1	40	17	COS
	FORTN	8	.1	80	17	FORTRAN
	STN	7.4	.1	40	10	STATION
West	COS	8.3	1	16	3	COS
	FORTN	4.5	1	8	2	FORTRAN



Q15: Operating Systems Ratings

	Code	Mean	Min.	Max.	Std. Dev.	Number of Cases	Description
All	AVAIL	6.9	2	10	1.9	35	OS Avail./Reliability
	RESP	7.4	2	10	1.9	30	OS Maint. Response Time Rating
	REPR	6.3	2	9	1.6	30	OS Maint. Repair Time Rating
West	AVAIL	6.4	2	10	2.2	10	
	RESP	7.1	2	10	2.5	8	
	REPR	6.0	2	7	1.6	9	

FORTRAN RATINGS



Q15. Fortran Ratings (Q15)

	Code	Mean	Min.	Max.	Std. Dev.	Number of Cases	Description
All	AVAIL	6.9	2	10	1.8		Fortran Avail./Rel.
	RESP	7.1	2	10	2		Fortran Maint. Resp. Time
	REPR	6.6	2	9	1.8		Fortran Maint. Repair Time
West	AVAIL	6.6	6	8	0.7	9	
	RESP	7.8	6	10	1.6	5	
	REPR	7.2	6	8	0.8	6	

SOFTWARE RESPONSE/REPAIR COMMENTS

"Takes Months to Resolve Software Problems."

"Takes 1 Hour to Forever to Repair Software."

"Is Responsive to Severe Software Problems, But Less So to Less Urgent Ones."

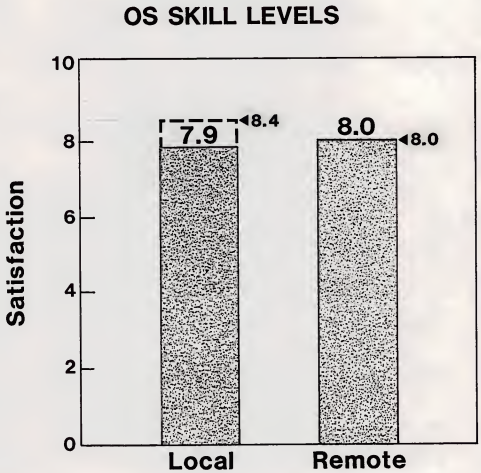
"Repair Time for Non-Critical Software Problems Is Terrible."

"Deferred Software Problems Take Too Long."

"CRI Is Terrible Regarding Bugs in Initial Releases."

"Many CRI Users in CUG Are Upset Regarding CRI's Quality Assurance Methods."

INPUT



Q16: OS Skill Level Ratings

	Code	Mean	Min.	Max.	Std. Dev.	Number of Cases	Description
All	LOCAL	7.9	4	10	1.6	28	Local On-site SW
	REMOTE	8	5	10	1.4	21	Remote (Dist., Reg., HQ)
West	LOCAL	8.4	8	10	0.8	7	
	REMOTE	8.0	7	9	1.0	5	

INPUT

FORTRAN COMMENTS

"FORTRAN has Dropped in Quality in the Past Year."

"CFT Is a Nightmare."

"CFT Is a Shaky Piece of Software."

"We Feel No One Is Listening to Us Regarding CFT."

"Can't Get Any Attention at CRI Headquarters Regarding FORTRAN."

"FORTRAN Is a Memory Hog."

INPUT

EXAMPLES OF UNIX COMMENTS

"We Are Uneasy About UNIX Planning."

"CRAY Should Carefully Evaluate if UNIX Is the Right OS."

"Very Important to Have Smooth Transition to UNIX."

"UNIX Information Flow to Us Is Sporadic."

INPUT

38 ZCRY
34ZCRY-2

COMMENTS CONCERNING SOFTWARE (GOVERNMENT CUSTOMERS)

"Want More CTSS Support from CRI"

"Improve Software."

"(CRI) Software Helps Competition."

"Repeatedly Ship Software That Doesn't Work."

"If We Had Relied on CRAY Software, We Would Have Been Much Further Behind."

"Taken CRAY a Long Time to Realize That Software Is Key to the Environment."

"If CRAY Software Were As Good As Their Hardware, No One Could Touch Them."

INPUT

COMMENTS CONCERNING SOFTWARE

(COMMERCIAL CUSTOMERS)

"Software Is Not Robust."

"Not At Same Level As Other Vendors."

"Need More Features."

"All Our Fault Finding with CRI Relates to Software."

"Insure Compatibility between OS Levels."

"Systems Software Development Is Crucial."

"Systems Software Failure - Our Strongest Concern."

"Software Is CRAY's Weakness."

"CRI Wants to Get Away from Software."

"CRAY Really Lacking in Systems Software."

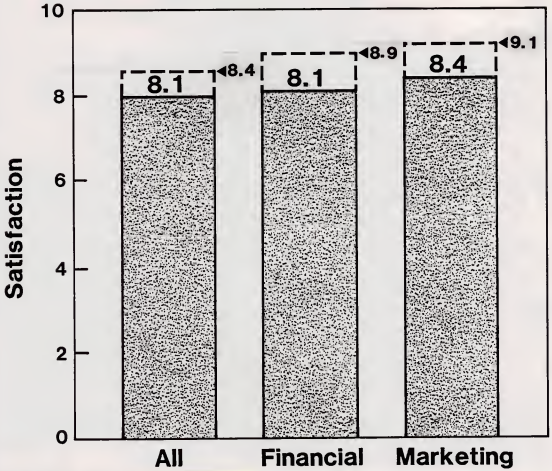
INPUT

CRI MARKETING AND HQ MANAGEMENT

INPUT

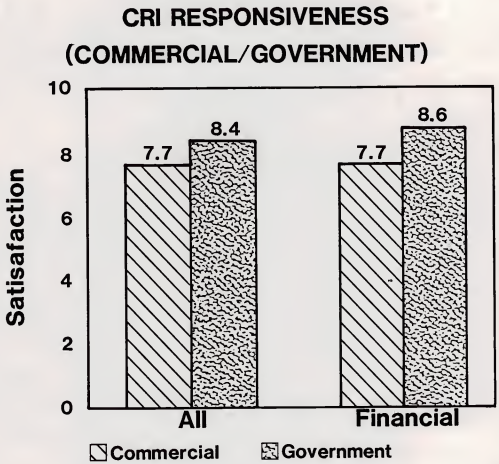
41 ZCRY
37ZCRY-2

CRI RESPONSIVENESS



Q21A,B,C: CRI Responsiveness

	Code	Mean	Min.	Max.	Std. Dev.	Number of Cases	Description
All	ALL	8	3	10	1.8	44	To Overall Needs
	FIN	8.1	3	10	2	41	To Financial Quest.
	MKTG	8.4	5	10	1.5	41	Marketing Personnel Helpfulness
West	ALL	8.4	6	10	1.4	14	
	FIN	8.9	6	10	1.2	14	
	MKTG	9.1	7	10	1.1	13	



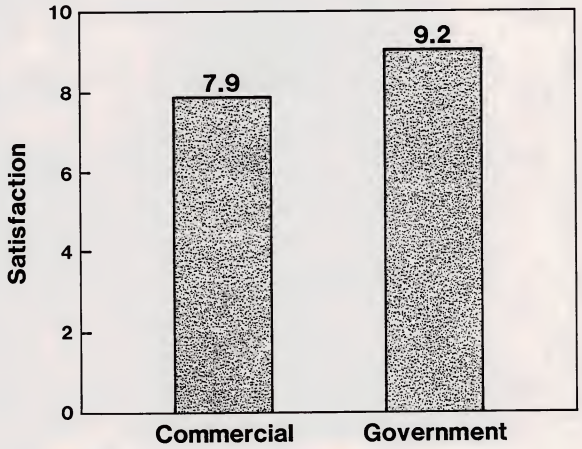
Q21AB : CRI RESPONSIVENESS

TYPE	MEAN	MIN	MAX	STD. DEV.	CASES	DESCRIPTION
ALL	8	3	10	1.8	44	TO OVERALL NEEDS
FIN.	8.1	3	10	2	41	TO FINANCIAL QUESTIONS

	ALL	FIN	STD. DEV. (ALL)	STD. DEV. (FIN)
COM	7.7	7.7	1.8	2.2
GOV	8.4	8.6	1.6	1.6

INPUT

43 ZCRY
39ZCRY-2

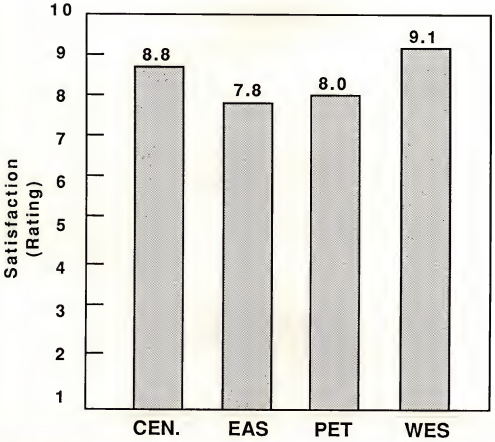


Q21C: MARKETING RESPONSIVENESS (COM/GOV)

TYPE	MEAN	MIN	MAX	STD. DEV.	CASES	DESCRIPTION
COM	7.9	5	10	1.5	24	COMMERCIAL
GOV	9.2	7	10	1	17	GOVERNMENT
ALL	8.4	5	10	1.5	41	COMBINED

INPUT

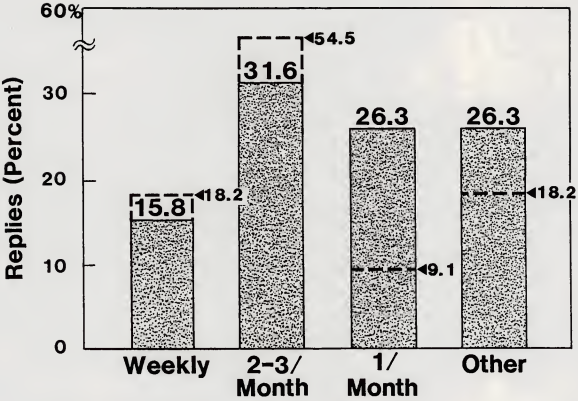
MARKETING RESPONSIVENESS (REGION)



Q21C: Marketing Personnel Helpfulness (By Region)

Region	Mean	Min.	Max.	Std. Dev.	Number of Cases	Description
CEN	8.8	6	10	1.4	8	Central
EAS	7.8	5	10	1.8	10	Eastern
PET	8	6	10	1.4	10	Petroleum
WES	9.1	7	10	1.7	13	Western
ALL	8.4	5	10	1.5	41	All Regions Combined

FREQUENCY OF SALES VISITS



Q21D: Frequency of CRI Marketing Rep. Visits

	Class	Percent Total	Number of Cases	Description
All	Weekly	15.8	6	Once per Week
	2-3/Mo.	31.6	12	2 to 3 Times per Month
	1/Mo.	26.3	10	About once per Month
	Other	26.3	10	Other
	Total	100	38	
West	Weekly	18.2		
	2-3/Mo.	54.5		
	1/Mo.	9.1		
	Other	18.2		
	Total	100.0	11	

LOCAL SALES STAFF

- Most Are Responsive at the Local Level
- Kept Too Isolated from Corporate Activities, Decisions
- Don't Have Enough Authority
- Love Us and Leave Us

INPUT

CRI HEADQUARTERS MANAGEMENT

- Responsive
- Available
- Too Inflexible Regarding Policies
- Sometimes Come Across As Arrogant

INPUT

47 ZCRY
44ZCRY-2

CRI'S MARKET POSITION

- To Date: Only Game in Town

- Very Soon: Significant Competition That Has Less Fast Hardware, But:
  - More Reliable Hardware
  - Better Systems Software
  - More Flexible Business Policies
  - Better End User Empathy, Support

TYPICAL ADJECTIVES USED BY RESPONDENTS

POSITIVE ADJECTIVES	NEGATIVE ADJECTIVES
Class Company	Set in Ways
Best Kid on Block	Arrogant
Great Hardware	Poor Software
Making Progress on Deficiencies	Progress Is too Slow

INPUT

COMPARISON:
GOVERNMENT VERSUS COMMERCIAL

Item	Government Attitudes	Commercial Attitudes
CRI Image:	A Class Act	Not a Class Act
Standard of Comparison:	CDC, Other Supercom-puter Vendors	IBM, DEC, Japanese
Decision Criteria:	Speed Software	Availability Total Needs
Software:	Support CTSS	Support Production Processing

INPUT

QUALITY AND PERFORMANCE STANDARDS ARE CHANGING

- Quality Definition Is Changing:
  - No Longer = Hardware Speed
  - Now = Hardware/Software/Support Availability and Reliability

- CRI Current Quality Is:
  - Superior to IBM in Terms of:
    - Hardware Speed, But
  - Inferior to IBM in Terms of:
    - Reliability
    - Hardware/Software Support
    - Sales Support

INPUT

RECOMMENDATIONS

- Customer-Based
- INPUT-Based

CUSTOMER-BASED RECOMMENDATIONS

INPUT

PERCEPTIONS OF CRI ATTITUDES/CHANGE NEEDED

Current CRI Attitudes	CRI Needs to Change to
Meeting Expectations	Meeting Total Needs
Fixing a Problem	Avoiding Problem in First Place
Policy Clarification	Creating Better Ones Quickly
Wanting to Help	Making It Happen
Scientific Lab Oriented	Responding to Commercial Differences
Hardware Oriented	Total Computing Solution Oriented

INPUT

INCREASE INTERACTION WITH CUSTOMER TOP MANAGEMENT

- **Purpose:**

  Keep Key Decision-Makers Continuously Pro-CRI

- **Suggestions:**

  - More Frequent Sales Contact
  - More CRI Top Management Contact
  - Conduct Executive Seminars
  - Develop Top Management-Oriented Presentations/Papers

INPUT

INCREASE INTERACTION WITH END USERS

- Purpose:

  Help Information Systems Department
  Fill Up Installed CRAYs Faster

- Suggestions:

  - Get To Know End Users More Intimately
  - More Frequent Sales Contact
  - Establish Regular Flow of Applications Ideas
    - Newsletter
    - Special Seminars
  - Offer More End-User Applications Tools
  - Publicize Availability of Third-Party Software

INPUT

KEEP INFORMATION SYSTEMS PEOPLE BETTER INFORMED

- Purpose:

  Keep Key Personnel Happy, Sell More

- Suggestions:
  - Formally Communicate New Products, Services, Plans, Policy Announcements
  - Increase Frequency of Sales Contacts
  - Require Hardware/Software Support Managers to Meet Customers
  - Respond Faster to Pricing, Contracts, Product Questions
  - Send Special Summary of This Survey

GENERAL RECOMMENDATIONS

- Clarify Existing Plans/Directions
  - UNICOS Characteristics, Implications
  - YMP Status
- Develop "CRI Vision of the Computing Future" Presentation
- More Aggressively Stimulate End-User Demand for CRI Computing Power

INPUT

SUMMARY: CUSTOMER ATTITUDES

- CRI Is a Very Impressive Company
- But Competitive Threat Is Greater Than CRI Realizes
- Customers Are Very Worried CRI is Insensitive to Need for a Total Computing Solution Strategy
- CRI Is Changing Too Slowly Regarding:
  - Role of Software
  - Reasonable Policies
  - Support After the Sale
  - Respect for the Customer
- Customers Like CRI and Want to Win

INPUT-BASED RECOMMENDATIONS

INPUT RECOMMENDATIONS:

BUSINESS STRATEGY

- Reduce Image of:

  We Are the Premier Hardware Performance Vendor

- Increase Image of:

  We Are the Premier Vendor for Total Computing Solutions for the Large-Scale Computing User

- Carefully Define, Respond to Commercial Versus Government Differences

INPUT RECOMMENDATIONS: BUSINESS STRATEGY

- Explicitly Define the Total Computing Solutions in Terms of:
  - Role of CRI in Commercial Shops
  - Role of CRI in IBM, DEC, Etc. World
  - Strong, Leading Edge Systems Software
  - Enhanced Information Systems and End-User Support

INPUT RECOMMENDATIONS:

MAKE SYSTEMS SOFTWARE QUALITY, QUANTITY A TOP PRIORITY

- Software Now Perceived As Afterthought
- Make It a Major Competitive Edge
- Provide Powerful:
  - OS Functions
  - Languages
  - Applications Development Tools

SUMMARY

- User Expectations Are Changing and Increasiing
- Customers Are Loyal, Want CRI to Prosper
- Government/Commercial Distinctions Becoming Apparent
- Customers Concerned CRI Is Underestimating Importance of Total Computing Solution Strategy
- Result: Loyalty to CRI Will Diminish as Com-\ petition Grows
- Opportunity: Demonstrate CRI Can Respond to these Changiing Customer Needs

INPUT

SAMPLE QUESTIONNAIRE

INPUT

58 ZCRY
62ZCRY-2

INTRODUCTION

Cray Research has commissioned INPUT to conduct a national customer satisfaction survey of all Cray computer users. The purpose of the survey is to help Cray identify opportunities to best serve you and others in the future.

INPUT is an independent international market research and consulting firm that specializes in the computer industry.

Cray has specifically asked us to interview you. Your opinions and suggestions are very important to Cray. We would like to get your candid responses at this time. If you wish any of your answers to be treated anonymously, please let us know.

SYSTEM PROFILE

1. To begin with we would like a quick profile of your current Cray computer system(s).

	System #1	System #2	System #3
a. Model Type	_____	_____	_____
b. Date of Installation	_____	_____	_____
c. Operating System	_____	_____	_____
d. Maint. Contract Type	_____	_____	_____
e. Maint. Service Since (Month/Year)	_____	_____	_____
f. Type of processing for majority of work: (Circle answer)	PRODUCTION RESEARCH	PRODUCTION RESEARCH	PRODUCTION RESEARCH

Definition: "Production" processing directly serves the organization's primary operational mission and is characterized most often by repetitive tasks that are frequently time critical. In contrast, "Research" processing usually involves projects dealing with investigations of scientific-related phenonemena, and is typically less time critical than production tasks.

DECISION CRITERIA

2. If your organization were to purchase a supercomputer today, how important would each of these factors be in the purchase decision process (scale of 1 to 10, with 1 = very low and 10 = very high importance).

	Rating (1 to 10)
a. Overall system performance	_____
b. System reliability	_____
c. Availability of systems software	_____
d. Availability of applications software	_____
e. Vendor reputation for maintenance	_____
f. Overall system price	_____
g. Maintenance price	_____

PERFORMANCE

3. How many hours per week is your system currently scheduled to operate? _____ HOURS

4. What is your percentage of utilization of the system during the past month, i.e. what portion of the time is the system actually being used, expressed as a percentage of the time the system is available for use. (Excluded from available time is downtime due to preventive maintenance and non-problem related software update time.) _____%

5. What percent utilization (on average over the past 6 months) are you currently experiencing with the entire system? _____%

6. How many hardware or software-caused system interruptions per system do you have monthly (on average over the past 6 months)?_____

a. What percent are hardware related?	_____
b. What percent are software related?	_____
c. What percent are "other" (environment, etc.)?	_____
TOTAL =	100%

HARDWARE

7. On the average how long does it take Cray to respond once you have placed a maintenance request:

a. during regular maintenance availability time? _____minutes

b. during off-hours? _____minutes

8. On the average how long does it take your Cray customer engineer to repair routine hardware problems once work has begun? _____hours

9. On a scale of 1 to 10, how satisfied are you with Cray's:

	Rating (1 to 10)
a. Mainframe availability/reliability	_____
b. Peripheral availability/reliability (e.g. disks, tapes, I/O subsystem)	_____
c. Hardware maintenance response time	_____
d. Hardware maintenance repair time	_____

10a. On a scale of 1 to 10, in your opinion what is the level of quality of the diagnostic procedures currently being used by Cray? _____

10b. What factors influenced your rating?_____

_____

_____

_____

11. Please rate on a scale of 1 to 10 your requirements for the following hardware goods and services, as well as your current level of satisfaction.

	Requirement? (YES/NO)	Satisfaction (1 to 10)
a. Hardware installation consulting	_____	_____
b. Hardware documentation	_____	_____
c. Parts availability	_____	_____
d. Cray's escalation procedures		_____
e. Cray ON-SITE customer engineer skill level		_____
f. Cray FIELD hardware technical support personnel skill level (i.e. region or headquarters -based people)		_____

SOFTWARE

12. For which of the following types of systems software are you currently receiving support (check all that apply)?

COS_____ CTSS_____ UNICOS_____

FORTRAN_____ STATION_____

	Operating System	FORTRAN	STATION
13. On average, how long does it take Cray to RESPOND to a systems software problem? (in hours).....	_____	_____	_____
14. On average, how long does it take Cray to RESOLVE a systems software problem? (in hours).....	_____	_____	_____

	Operating System	FORTRAN	STATION
15. How satisfied are you (1 to 10, 10 = highest) with:			
a. Systems software availability/reliability..	_____	_____	_____
b. Systems software maintenance RESPONSE time..	_____	_____	_____
c. Systems software maintenance REPAIR time..	_____	_____	_____
16. How satisfied are you with the different methods of software support, as provided by:			
a. Cray's ON-SITE software analyst?	_____	_____	_____
b. Cray FIELD software technical support personnel (region or headquarter-based)?	_____	_____	_____

17. Would you be willing to participate in systems software support maintenance by any of the following methods?

	Doing Now? (YES/NO)	Would Consider Doing? (YES/NO)	Expect Maintenance Discount? (YES/NO)	How Much?
a. Working with a support center to diagnose a problem.	_____	_____	_____	_____
b. Installing patches or modifications developed by Cray.	_____	_____	_____	_____
c. Installing new releases received from Cray.	_____	_____	_____	_____

18. Please rate on a scale of 1 to 10 your requirements for the following systems software goods and services, as well as your current level of satisfaction:

	S A T I S F A C T I O N (1 TO 10)		
	Operating System	FORTRAN	STATION
a. Systems software documentation	_____	_____	_____
b. Systems software training at your site	_____	_____	_____
c. Systems software training at Cray headquarters	_____	_____	_____
d. Systems software consulting	_____	_____	_____
e. Systems software escalation	_____	_____	_____

GENERAL

19a. On a scale of 1 to 10, how satisfied were you with the hardware installation service provided by Cray?_____

19b. What factors influenced your installation satisfaction rating above?_____

_____

_____

_____

_____

_____

_____

20a. Would you like to see Cray become more active in the use of remote diagnostics?

YES____ NO____

20b.Why or why not?_____

_____

_____

_____

_____

21. The following questions relate to how well you like doing business with Cray. Please respond on a scale of 1 to 10 with 1 being not satisfied and 10 being extremely satisfied.

	Satisfaction (1 to 10)
a. Extent Cray is responsive to your organization's overall needs	_____
b. Cray's responses to your financial questions	_____
c. Helpfulness of Cray marketing personnel	_____

In regards to your Cray marketing representative:

d. On the average, how frequently have you seen that person face to face during the past six months?

ABOUT ONCE PER WEEK _____

ABOUT 2 TO 3 TIMES PER MONTH _____

ABOUT ONCE PER MONTH _____

OTHER _____

(Specify frequency)_____

e. How many working days has it been since you last you last received a visit from that person?

DAYS SINCE LAST VISIT_____

22. On a scale of 1 to 10 (10 = high) please rate Cray in the following categories:

	Satisfaction (1 to 10)
a. Overall satisfaction with Cray's maintenance service	_____
b. Price of maintenance service	_____
c. Frequency of interaction with Cray executive and senior management personnel	_____

23. What suggestions do you have concerning how interaction could be improved between Cray executives and Cray customers?

_____

_____

_____

_____

_____

24. On a scale of 1 to 10, how well is your Cray system living up to your expectations:

	Expectation Level (1 to 10)
a. When you first acquired it?	_____
b. Currently?	_____

25. In addition to what has been discussed above, is there anything Cray could do to further improve your satisfaction with them?

_____

_____

_____

_____

_____

_____

_____

_____

26a. All things considered, if tomorrow morning you were to suddenly receive funding approval for acquiring additional supercomputer capability, would you buy from Cray?

YES____ NO____

26b. Why or why not?_____

_____

_____

_____

_____

27. Do you have any other suggestions or comments that you would like to pass along to Cray concerning any aspect of their business? If YES, what are they?_____

_____

_____

_____

_____

_____

ADDITIONAL NOTES

THANK YOU VERY MUCH FOR YOUR TIME